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# Prescribed Burns Benefit Desert and Forest Landscapes

From helping to eliminate invasive weeds to burning duff and fine fuels, prescribed fire is a useful tool

By Lauren Brown  
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In the spring and fall, it's not unusual to see smoke billowing up from areas in Harney County. The smoke is not from out-of-control wildfires, but from prescribed burns purposefully set by the Bureau of Land Management, the Forest Service and the Malheur National Wildlife Refuge.

Joseph Sullivan is a fuels management specialist with the Burns District Bureau of Land Management and helps plan prescribed burns for the Andrews and Three Rivers field offices and also assists the Malheur National Wildlife Refuge (MNWR) with their prescribed fire planning. "Prescribed fire is a tool that we use to reduce fuel loading and help move our landscape toward its historical state before western expansion" he said.

A lot of factors are taken into consideration when determining what the objectives should be when planning a prescribed burn. For example, Sullivan said that when using prescribed fire in Ponderosa pine stands, the BLM is looking to thin out the smaller trees, reduce the pine litter depths and create some natural openings. "We also try to leave wildlife trees and large wildlife logs where we can. Usually, we try to burn in the spring or the fall, when our temperatures and humidity aren't extreme," he said. While they are looking to use prescribed fire to improve habitat for wildlife, they are also looking to create fuel breaks that firefighters can use to protect communities during the summertime in the event of a wildfire.



*Pictured: Fall of 2019 implementing a prescribed burn in the Pueblo Mountain range.*

Toby White, a fuels planner with the Burns District BLM, said that prescribed burns are planned with adequate resources to contain the fire within preset, planned boundaries. "Once these prescribed burns have been treated, they provide areas with low fuel loading that firefighters can use as anchor points to stop active wildfires from becoming megafires," he said.

In turn, keeping the fuel load low keeps the fire intensity low and this can be key when fighting wildfires during the dry, low-humidity summer days. "Low intensity wildfires can burn through low fuel loading areas without killing the overstory, helping to naturally keep the landscape at historic fuel loading levels and allowing trees to become more fire tolerant," White said.

Prescribed fire treatments can be used to make a landscape more resilient to prevent megafires, and they can also be used to clear noxious weeds so the ground can be seeded with native plants. Casey O'Connor, fire planner with the Burns District BLM, said that prescribed fire could be used for example on a thatch of Medusahead, an invasive weed, in the Stinkingwater area to facilitate a seeding of plants that are native to the area. "One of the logical tools to set a site up to seed natives or perennial desired plants back into it would be



to burn that thatch and kill off as much of that seed source in the ground to set that up for success," he said.

*Pictured: A new flush of grass within weeks of a prescribed fire that was implemented during the spring prescribed fire season.*

Prescribed burns that have occurred recently include one off the Forest Service 31 Road near the Joaquin Miller and Idlewild campgrounds. O'Connor said that conditions such as wind and humidity are carefully considered. "They're wanting conditions that are dry enough that they consume some of the heavier fuel on the floor and clean up the needle cast to release some nutrients for wildlife habitat as well as set the forest up to be more resilient should a wildfire occur there," he said.

A similar treatment was performed in the Buck Springs Campground last fall, said

O'Connor. "If we get a wildfire in those areas, it will be easy to deal with because the fuels have been reduced, and it's a landscape that's set up for happy, healthy fire versus a stand replacement type fire," he said.

O'Connor said that many of the prescribed burns for the BLM consist of contract cutting and piling so that they can be burned later in the fall. "On steeper ground, we do hand pile treatments. On ground that's not too rocky, not too steep, we try to do mechanical piling because it's more cost effective and we can reduce that footprint of disturbance on the landscape," he said.

The Malheur National Wildlife Refuge conducted a prescribed burn last winter near Frenchglen to improve wildlife nesting habitat and reduce decadent fuels and will carry out similar burns next winter.

Costs for prescribed burns can vary depending on a number of factors according to Tim Boyce, a fire management specialist with the U.S. Forest Service, Malheur National Forest, Emigrant Creek Ranger District. Some factors include the complexity of the project, organizational requirements, constraints, environmental conditions during implementation and how many acres they can complete in a day based on those variables. He said recent forest projects have ranged in cost from \$30 to \$70 per acre. "The cost per acre goes down when we are able to complete more acres in a day. Cost goes up when we are limited on acres accomplished in a day," he said.

White, who works for the Burns District BLM, said that costs in the desert habitat can range from \$70 to \$150 per acre treated “It is dependent on number of resources, whether the resources are local or if they were ordered from out of area, if aerial resources are being used or only ground resources,” he said. “Generally, the larger the area treated, the more economical per acre.”

*Pictured: An early visitor, Monte, to the Prescribed Fire Educational Trail at Idlewild Campground.*



To provide the public with more information about prescribed fire, a Prescribed Fire Trail was established at the Idlewild Campground. Along the trail, signs were installed that provide an explanation about how prescribed fire is used. “The signs discuss the role fire historically played on the landscape, the effects of altering the fire return interval with fire suppression, forest health, the relationship between wildlife and prescribed fire, and a little overview of the planning and implementation of prescribed fire on the landscape,” Boyce said.

O’Connor said he thinks this sort of public education is much needed. “I don’t think we do a good job telling our story as far as what’s going on and why,” he said of the government conducted prescribed fire projects. “Having a walk through explaining the why and what and how to the public users of the landscape, I think that’s awesome,” he said.

*This article is provided by High Desert Partnership; a Harney County nonprofit convening and supporting six collaboratives including the Harney County Wildlife Collaborative and the Harney County Restoration Collaborative.*

